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## (57) Abstract

**Technical problem** A cable is pinched by one-touch and it is considered as the cable stops of a fixable structure.

**Means for Solution** Since a cable which has a circular section is pinched and it fixes, they are the cable stops which carried out bending formation and constituted a monotonous metallic material in one, Form the rectangular bend part 11 in that center, and the circular part 13 of a couple which forms successively to this rectangular bend part, respectively, and pinches a cable is formed, When the height 17 which formed the 1st locking piece 16 and the 2nd locking piece 18 in a rectangular piece part which the outside formed successively to this circular part 13 was made to bend, and was formed in the 1st locking piece 16 fits into an opening formed in the 2nd locking piece 18, a locked state of the 1st locking piece 16 and the 2nd locking piece 18 is maintained.

## Claim(s)

**Claim 1** Cable stops which carried out bending formation and constituted a monotonous metallic material in one side a cable characterized by comprising the following which has a circular section was pinched and it fixed.

A rectangular bend part located in the center of said cable stops.

A circular part of a couple which counters \*\* so that it may form successively to this rectangular bend part, respectively and may become outside with convex.

A rectangular piece part bent outside, respectively so that it might form successively to this circular part, respectively.

The 1st locking piece that forms a height in one rectangular piece part at a flank which bent a narrow rectangular piece inside from said rectangular piece part, formed successively, and met in the successive formation direction of this rectangular piece, and the 2nd locking piece that forms an opening to which makes a rectangular piece part of another side bend a rectangular piece inside, it forms successively, and said height fits into this rectangular piece.

**Claim 2** Cable stops of claim 1 between which an inclined part bent inside to a rectangular bend part between a rectangular bend part and a circular part was made to be placed.

**Claim 3** Cable stops of claim 1 or claim 2 which a height bent and formed **stops** outside an extendedly installed piece installed by the 1st locking piece, bent the end side of the 1st locking piece to an inner side direction, and bent the end side of the 2nd locking piece to an outside direction.

**Claim 4** Cable stops of claim 3 made into triangular shape which has an oblique side with a height loose to the 2nd locking piece side.

## Detailed Description of the Invention

### 0001

**The technical field to which an invention belongs** This invention relates to the cable stops for fixing the high frequency coaxial cable used for a microwave communication institution etc., and relates to the cable stops which have especially the structure which can wearing fix a cable by one-touch.

### 0002

**Description of the Prior Art**As the cable stops 90 currently used conventionally, as shown, for example in drawing 10, what carried out bending formation and constituted the monotonous metallic material in one is used. These cable stops form the rectangular bend part 91 in that center section, and the circular parts 92 and 92 of the couple which counters \*\* so that it may become convex outside are formed successively by this rectangular bend part 91, respectively. And the rectangular piece parts 93 and 93 bent outside are formed successively at the end side of this circular part 92, respectively, and the pore 94 is punched at the all directions shaped piece part 93. When constructing a cable, the fixation hole 95 for fixing the cable stops 90 to an installation place is formed in the horizontal plane part 91a of said rectangular bend part 91.

**0003**Next, directions for use are explained to the above-mentioned cable stops. Arrange two or more cable stops 90 at the predetermined intervals to the installation place (fixed part material) of a cable, insert the screw 100 in the fixation hole 95 of the horizontal plane part 91a of the rectangular bend part 91, a screw tip part is made to screw on the fixed part material 101, and the cable stops 90 are fixed. It arranges so that the cable 102 which has a circular section may be inserted by the circular part 92 of the cable stops 90, The bolt 103 with which the screw thread was formed from the outside of the rectangular piece part so that while might penetrate the pore 94 of the all directions shaped piece part 93 is inserted, By equipping the outside of the rectangular piece part of another side with the rectangular shape nut 105 via the washer 104, and making the bolt 103 screw on to the rectangular shape nut 105 by which rotation was regulated with the locking piece 96 provided in the end of the rectangular piece part 93, A cable side face is pinched by the circular part 92 of the cable stops 90, and the cable 102 is certainly fixed.

### 0004

**Problem(s) to be Solved by the Invention**However, according to the cable stops of the above-mentioned structure, when the cable 102 was pinched and it fixed, it fastened with the bolt 103 and the rectangular shape nut 105, and the rectangular piece parts 93 and 93 needed to be fixed, work took time and effort and there was a problem of being trouble. In order to usually use many cable stops for construction of a cable, when \*\*\*\* fastened about all the cable stops and price work was done, there was a problem that construction work took time. The work which loosens the bolt 103 of each cable stops had to be done also with the case where the cable constructed is removed, and there was a problem that the removing operation of a cable took time.

**0005**It aims at providing the cable stops which this invention was made in view of the above-mentioned actual condition, pinches a cable by one-touch, and have a fixable structure.

### 0006

**Means for Solving the Problem**Since an invention of claim 1 pinches a cable which has a circular section in order to attain the above-mentioned purpose, and it fixes, it is the cable stops which carried out bending formation and

constituted a monotonous metallic material in one, and the next composition is included. A rectangular bend part located in the center of said cable stops is provided. A circular part of a couple which counters \*\* so that it may form successively to this rectangular bend part, respectively and may become outside with convex is provided. A rectangular piece part bent outside, respectively so that it might form successively to this circular part, respectively is provided. A narrow rectangular piece is bent inside to one rectangular piece part from said rectangular piece part, it forms successively to it, and the 1st locking piece that forms a height at a flank which met in the successive formation direction of this rectangular piece is provided in it. A rectangular piece part of another side is made to bend a rectangular piece inside, it forms successively, and the 2nd locking piece that forms an opening to which said height fits into this rectangular piece is provided.

**0007**Claim 2 is characterized by making an inclined part bent inside to a rectangular bend part between a rectangular bend part and a circular part intervene in cable stops of claim 1.

**0008**Claim 3 is characterized by a height's having bent and formed outside an extendedly installed piece installed by the 1st locking piece, having bent the end side of the 1st locking piece to an inner side direction, and bending the end side of the 2nd locking piece to an outside direction in cable stops of claim 1 or claim 2.

**0009**It is characterized by a height making claim 4 triangular shape which has a loose oblique side in the 2nd locking piece side in cable stops of claim 3.

**0010**According to the cable stops of the above-mentioned structure, by making a height of the 1st locking piece fit into an opening of the 2nd locking piece, the 1st locking piece and the 2nd locking piece are fixed, and interposing and fixing of the cable can be carried out between circular parts.

**0011**

**Embodiment of the Invention**An example of the gestalt of the cable stops by this invention is explained referring to drawings. As for a transverse-plane explanatory view and drawing 3, drawing 1 is **the strabism explanatory view of cable stops, and drawing 2 / the transverse-plane explanatory view of the 2nd locking piece portion and (b of a side explanatory view and drawing 4 (a))** the transverse-plane explanatory views of the 1st locking piece portion.

**0012**Since the cable 102 which has a circular section is pinched and it fixes, the cable stops 10 carry out bending formation of the monotonous metallic material, and are constituted in one. The rectangular bend part 11 horseshoe-shaped in a section is formed in the central crowning of the cable stops 10, and the fixed hole part 12 for fixing the cable stops 90 to an installation place is punched at the horizontal plane part 11a of this rectangular bend part 11 at it. The circular parts 13 and 13 of the couple which counters \*\* so that it may become convex to the outside are formed successively at the both-ends side of this rectangular bend part 11, respectively. The circular-projections part 14 used as convex is formed in the upper position and the downward position to the center of the circular part 13 at each circular part 13 inside of press working of sheet metal. This circular-projections part 14 is for preventing a gap of the cable inserted by the circular part 13.

**0013**The rectangular piece parts 15a and 15b bent outside, respectively are formed successively by each circular part 13. In one rectangular piece part 15a, the narrow rectangular piece 16 makes it bend inside, are formed successively, form the height 17 in the flank which met in the successive formation direction of this rectangular piece 16, and constitutes the 1st locking piece from said rectangular piece part 15a. The rectangular piece 18 makes it bend inside in the rectangular piece part 15b of another side, it is formed successively, the opening 19 to which said height 17 fits into this rectangular piece 18 is formed in it, and the 2nd locking piece is constituted.

**0014**Said height 17 bends outside the extendedly installed piece installed by the 1st locking piece (rectangular piece 16), and is formed. While bending slightly the end side of the 1st locking piece (rectangular piece 16) to an inner side direction and forming the bend part 20, the end side of the 2nd locking piece (rectangular piece 18) is slightly bent to an outside direction, and forms the bend part 21. Said opening 19 is formed in rectangular shape with a longitudinal direction longer than the width of the 1st locking piece (rectangular piece 16), and the transverse direction longer than 17 heights.

**0015**As shown in drawing 7, shape of said height 17 is made into the triangular shape which has a loose oblique side in the 2nd locking piece (rectangular piece 18) side, and it is formed so that the extension wire of an oblique side may approximately meet the bend part 20 of the end of the abbreviated 1st locking piece (rectangular piece 16). And the vertical angle alpha of the height 17 is formed in the right-angled smaller angle.

**0016**In according to the cable stops 10 of the above-mentioned structure the usual state (state where power is not made to act in any way), As shown in drawing 2, the 1st locking piece (rectangular piece 16) and the 2nd locking piece (rectangular piece 18) separate, it is located, and the power which it is going to leave to \*\* by operation of the rectangular bend part 11 if it carries out in which I bring both close arises. And by bringing the 1st locking piece (rectangular piece 16) and the 2nd locking piece (rectangular piece 18) close against this power, as shown in drawing 5 and drawing 6, the height 17 of the 1st locking piece is fitted into the opening 19 of the 2nd locking piece, the height 17 serves as a stopper, and a fitting state can be maintained.

**0017**Next, the directions for the above-mentioned cable stops are explained. First, arrange two or more cable stops 10 at the predetermined intervals to the installation place (fixed part material) of a cable, and insert a screw (not shown) in the fixation hole 12 of the horizontal plane part 11a of the rectangular bend part 11, a screw tip

part is made to screw on fixed part material like a conventional example, and cable stops are fixed. It arranges so that the cable which has a circular section may be inserted by the circular part 13 of the cable stops 10. Since the height 17 will serve as a stopper and a fitting state will be maintained if the 1st locking piece (rectangular piece 16) and the 2nd locking piece (rectangular piece 18) are brought close and the height 17 of the 1st locking piece is made to fit into the opening 19 of the 2nd locking piece, a cable is fixable by the cable stops 10 by one-touch.

**0018**Since the end side of the 1st locking piece (rectangular piece 16) is bent to an inner side direction, the bend part 20 is formed, the end side of the 2nd locking piece (rectangular piece 18) is bent to an outside direction and the bend part 21 is formed, it can face bringing the 1st locking piece and the 2nd locking piece close, pieces cannot hit, and the height 17 of the 1st locking piece can make it shift to the fitting state which fits into the opening 19 of the 2nd locking piece promptly.

**0019**Since the shape of the height 17 considers it as the triangular shape which has a loose oblique side in the 2nd locking piece side and the extension wire of this oblique side is formed approximately along with the bend part 20 of the end of the 1st locking piece, Without the oblique side of said height 17 contacting along with the end of the 2nd locking piece, and applying big power, when shifting to said fitting state, the height 17 can be inserted in the opening 19 and the shape and the interval of an end of the 2nd locking piece can be crowded.

**0020**Since the vertical angle alpha of the height 17 is formed in the right-angled smaller angle (drawing 7), The angle beta of the base of the height 17 can turn into 90 degrees or less, it can fit in so that the crowning 17a of the height 17 may bite the 2nd locking piece (rectangular piece 18) in a fitting state (drawing 6), and the height 17 can be prevented from separating from the opening 19, and a fitting state can be maintained certainly.

**0021**In removing a cable from the cable stops 10, By inserting the tip of the subtracted type driver A between the 1st locking piece (rectangular piece 16) and the bend part 21, and moving the driver A in the direction of the arrow of drawing 8 by making the tip of the driver A into a fulcrum like drawing 8, The state where the 1st locking piece (rectangular piece 16) and the 2nd locking piece (rectangular piece 18) could be made to desert easily by a lever rule, the height of the 1st locking piece separated from them from the opening of the 2nd locking piece, and the cable was inserted by the circular part is canceled, and desorption of a cable can be performed easily. Since the bend part 21 is formed in the 2nd locking piece (rectangular piece 18), the tip of the driver A is made easy to insert between the 1st locking piece (rectangular piece 16) and the bend part 21.

**0022**Drawing 9 shows the other examples of an embodiment of the invention, and attaches identical codes about the portion which takes the same composition as the example of drawing 2. This example is the cable stops for fixing the cable of a small path as compared with drawing 2, and the composition which formed the inclined part 81 bent inside succeeding the rectangular bend part 11 differs. By forming the inclined part 81, the cross-section area of the cable inserted by the circular part 13 can be made small.

**0023**According to each above-mentioned gestalt, it was considered as the one opening 19 formed in the 2nd suspending portion (rectangular neighborhood 18), but it may be the composition that provide two openings corresponding to each height 17, and each height 17 fits into each opening.

#### 0024

**Effect of the Invention**According to the cable stops of this invention, the height of the 1st locking piece by the one touch work of making the opening of the 2nd locking piece fit in. Since the 1st locking piece and the 2nd locking piece can be fixed where a cable is inserted by a circular part, and this state can be maintained, interposing and fixing of the cable can be carried out by easy work. By removing the height of the 1st locking piece from the opening of the 2nd locking piece, the state where the cable was inserted by the circular part is canceled, and desorption of a cable can be performed easily.

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**The technical field to which an invention belongs** This invention relates to the cable stops for fixing the high frequency coaxial cable used for a microwave communication institution etc., and relates to the cable stops which have especially the structure which can wearing fix a cable by one-touch.

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**Description of the Prior Art**As the cable stops 90 currently used conventionally, as shown, for example in drawing 10, what carried out bending formation and constituted the monotonous metallic material in one is used. These cable stops form the rectangular bend part 91 in that center section, and the circular parts 92 and 92 of the couple which counters \*\* so that it may become convex outside are formed successively by this rectangular bend part 91, respectively. And the rectangular piece parts 93 and 93 bent outside are formed successively at the end side of this circular part 92, respectively, and the pore 94 is punched at the all directions shaped piece part 93. When constructing a cable, the fixation hole 95 for fixing the cable stops 90 to an installation place is formed in the horizontal plane part 91a of said rectangular bend part 91.

**0003**Next, directions for use are explained to the above-mentioned cable stops. Arrange two or more cable stops 90 at the predetermined intervals to the installation place (fixed part material) of a cable, insert the screw 100 in

the fixation hole 95 of the horizontal plane part 91a of the rectangular bend part 91, a screw tip part is made to screw on the fixed part material 101, and the cable stops 90 are fixed. It arranges so that the cable 102 which has a circular section may be inserted by the circular part 92 of the cable stops 90. The bolt 103 with which the screw thread was formed from the outside of the rectangular piece part so that while might penetrate the pore 94 of the all directions shaped piece part 93 is inserted. By equipping the outside of the rectangular piece part of another side with the rectangular shape nut 105 via the washer 104, and making the bolt 103 screw on to the rectangular shape nut 105 by which rotation was regulated with the locking piece 96 provided in the end of the rectangular piece part 93, A cable side face is pinched by the circular part 92 of the cable stops 90, and the cable 102 is certainly fixed.

**Effect of the Invention**According to the cable stops of this invention, the height of the 1st locking piece by the one touch work of making the opening of the 2nd locking piece fit in. Since the 1st locking piece and the 2nd locking piece can be fixed where a cable is inserted by a circular part, and this state can be maintained, interposing and fixing of the cable can be carried out by easy work. By removing the height of the 1st locking piece from the opening of the 2nd locking piece, the state where the cable was inserted by the circular part is canceled, and desorption of a cable can be performed easily.

**Problem(s) to be Solved by the Invention**However, according to the cable stops of the above-mentioned structure, when the cable 102 was pinched and it fixed, it fastened with the bolt 103 and the rectangular shape nut 105, and the rectangular piece parts 93 and 93 needed to be fixed, work took time and effort and there was a problem of being trouble. In order to usually use many cable stops for construction of a cable, when \*\*\*\* fastened about all the cable stops and price work was done, there was a problem that construction work took time. The work which loosens the bolt 103 of each cable stops had to be done also with the case where the cable constructed is removed, and there was a problem that the removing operation of a cable took time. **0005**It aims at providing the cable stops which this invention was made in view of the above-mentioned actual condition, pinches a cable by one-touch, and have a fixable structure.

**Means for Solving the Problem**Since an invention of claim 1 pinches a cable which has a circular section in order to attain the above-mentioned purpose, and it fixes, it is the cable stops which carried out bending formation and constituted a monotonous metallic material in one, and the next composition is included. A rectangular bend part located in the center of said cable stops is provided. A circular part of a couple which counters \*\* so that it may form successively to this rectangular bend part, respectively and may become outside with convex is provided. A rectangular piece part bent outside, respectively so that it might form successively to this circular part, respectively is provided. A narrow rectangular piece is bent inside to one rectangular piece part from said rectangular piece part, it forms successively to it, and the 1st locking piece that forms a height at a flank which met in the successive formation direction of this rectangular piece is provided in it. A rectangular piece part of another side is made to bend a rectangular piece inside, it forms successively, and the 2nd locking piece that forms an opening to which said height fits into this rectangular piece is provided.

**0007**Claim 2 is characterized by making an inclined part bent inside to a rectangular bend part between a rectangular bend part and a circular part intervene in cable stops of claim 1.

**0008**Claim 3 is characterized by a height's having bent and formed outside an extendedly installed piece installed by the 1st locking piece, having bent the end side of the 1st locking piece to an inner side direction, and bending the end side of the 2nd locking piece to an outside direction in cable stops of claim 1 or claim 2.

**0009**It is characterized by a height making claim 4 triangular shape which has a loose oblique side in the 2nd locking piece side in cable stops of claim 3.

**0010**According to the cable stops of the above-mentioned structure, by making a height of the 1st locking piece fit into an opening of the 2nd locking piece, the 1st locking piece and the 2nd locking piece are fixed, and interposing and fixing of the cable can be carried out between circular parts.

**0011**

**Embodiment of the Invention**An example of the gestalt of the cable stops by this invention is explained referring to drawings. As for a transverse-plane explanatory view and drawing 3, drawing 1 is **the strabism explanatory view of cable stops, and drawing 2 / the transverse-plane explanatory view of the 2nd locking piece portion and (b of a side explanatory view and drawing 4 (a))** the transverse-plane explanatory views of the 1st locking piece portion.

**0012**Since the cable 102 which has a circular section is pinched and it fixes, the cable stops 10 carry out bending

formation of the monotonous metallic material, and are constituted in one. The rectangular bend part 11 horseshoe-shaped in a section is formed in the central crowning of the cable stops 10, and the fixed hole part 12 for fixing the cable stops 90 to an installation place is punched at the horizontal plane part 11a of this rectangular bend part 11 at it. The circular parts 13 and 13 of the couple which counters \*\* so that it may become convex to the outside are formed successively at the both-ends side of this rectangular bend part 11, respectively. The circular-projections part 14 used as convex is formed in the upper position and the downward position to the center of the circular part 13 at each circular part 13 inside of press working of sheet metal. This circular-projections part 14 is for preventing a gap of the cable inserted by the circular part 13.

**0013**The rectangular piece parts 15a and 15b bent outside, respectively are formed successively by each circular part 13. In one rectangular piece part 15a, the narrow rectangular piece 16 makes it bend inside, are formed successively, form the height 17 in the flank which met in the successive formation direction of this rectangular piece 16, and constitutes the 1st locking piece from said rectangular piece part 15a. The rectangular piece 18 makes it bend inside in the rectangular piece part 15b of another side, it is formed successively, the opening 19 to which said height 17 fits into this rectangular piece 18 is formed in it, and the 2nd locking piece is constituted.

**0014**Said height 17 bends outside the extendedly installed piece installed by the 1st locking piece (rectangular piece 16), and is formed. While bending slightly the end side of the 1st locking piece (rectangular piece 16) to an inner side direction and forming the bend part 20, the end side of the 2nd locking piece (rectangular piece 18) is slightly bent to an outside direction, and forms the bend part 21. Said opening 19 is formed in rectangular shape with a longitudinal direction longer than the width of the 1st locking piece (rectangular piece 16), and the transverse direction longer than 17 heights.

**0015**As shown in drawing 7, shape of said height 17 is made into the triangular shape which has a loose oblique side in the 2nd locking piece (rectangular piece 18) side, and it is formed so that the extension wire of an oblique side may approximately meet the bend part 20 of the end of the abbreviated 1st locking piece (rectangular piece 16). And the vertical angle alpha of the height 17 is formed in the right-angled smaller angle.

**0016**In according to the cable stops 10 of the above-mentioned structure the usual state (state where power is not made to act in any way), As shown in drawing 2, the 1st locking piece (rectangular piece 16) and the 2nd locking piece (rectangular piece 18) separate, it is located, and the power which it is going to leave to \*\* by operation of the rectangular bend part 11 if it carries out in which I bring both close arises. And by bringing the 1st locking piece (rectangular piece 16) and the 2nd locking piece (rectangular piece 18) close against this power, as shown in drawing 5 and drawing 6, the height 17 of the 1st locking piece is fitted into the opening 19 of the 2nd locking piece, the height 17 serves as a stopper, and a fitting state can be maintained.

**0017**Next, the directions for the above-mentioned cable stops are explained. First, arrange two or more cable stops 10 at the predetermined intervals to the installation place (fixed part material) of a cable, and insert a screw (not shown) in the fixation hole 12 of the horizontal plane part 11a of the rectangular bend part 11, a screw tip part is made to screw on fixed part material like a conventional example, and cable stops are fixed. It arranges so that the cable which has a circular section may be inserted by the circular part 13 of the cable stops 10, Since the height 17 will serve as a stopper and a fitting state will be maintained if the 1st locking piece (rectangular piece 16) and the 2nd locking piece (rectangular piece 18) are brought close and the height 17 of the 1st locking piece is made to fit into the opening 19 of the 2nd locking piece, a cable is fixable by the cable stops 10 by one-touch.

**0018**Since the end side of the 1st locking piece (rectangular piece 16) is bent to an inner side direction, the bend part 20 is formed, the end side of the 2nd locking piece (rectangular piece 18) is bent to an outside direction and the bend part 21 is formed, it can face bringing the 1st locking piece and the 2nd locking piece close, pieces cannot hit, and the height 17 of the 1st locking piece can make it shift to the fitting state which fits into the opening 19 of the 2nd locking piece promptly.

**0019**Since the shape of the height 17 considers it as the triangular shape which has a loose oblique side in the 2nd locking piece side and the extension wire of this oblique side is formed approximately along with the bend part 20 of the end of the 1st locking piece, Without the oblique side of said height 17 contacting along with the end of the 2nd locking piece, and applying big power, when shifting to said fitting state, the height 17 can be inserted in the opening 19 and the shape and the interval of an end of the 2nd locking piece can be crowded.

**0020**Since the vertical angle alpha of the height 17 is formed in the right-angled smaller angle (drawing 7), The angle beta of the base of the height 17 can turn into 90 degrees or less, it can fit in so that the crowning 17a of the height 17 may bite the 2nd locking piece (rectangular piece 18) in a fitting state (drawing 6), and the height 17 can be prevented from separating from the opening 19, and a fitting state can be maintained certainly.

**0021**In removing a cable from the cable stops 10, By inserting the tip of the subtracted type driver A between the 1st locking piece (rectangular piece 16) and the bend part 21, and moving the driver A in the direction of the arrow of drawing 8 by making the tip of the driver A into a fulcrum like drawing 8, The state where the 1st locking piece (rectangular piece 16) and the 2nd locking piece (rectangular piece 18) could be made to desert easily by a lever rule, the height of the 1st locking piece separated from them from the opening of the 2nd locking piece, and the cable was inserted by the circular part is canceled, and desorption of a cable can be performed easily. Since the bend part 21 is formed in the 2nd locking piece (rectangular piece 18), the tip of the driver A is made easy to

insert between the 1st locking piece (rectangular piece 16) and the bend part 21.

**0022** Drawing 9 shows the other examples of an embodiment of the invention, and attaches identical codes about the portion which takes the same composition as the example of drawing 2. This example is the cable stops for fixing the cable of a small path as compared with drawing 2, and the composition which formed the inclined part 81 bent inside succeeding the rectangular bend part 11 differs. By forming the inclined part 81, the cross-section area of the cable inserted by the circular part 13 can be made small.

**0023** According to each above-mentioned gestalt, it was considered as the one opening 19 formed in the 2nd suspending portion (rectangular neighborhood 18), but it may be the composition that provide two openings corresponding to each height 17, and each height 17 fits into each opening.

### **Brief Description of the Drawings**

**Drawing 1** It is a strabism explanatory view of an example of the gestalt of the cable stops by this invention.

**Drawing 2** It is a transverse-plane explanatory view of cable stops.

**Drawing 3** It is a side explanatory view of cable stops.

**Drawing 4** (a) is a transverse-plane explanatory view of the 2nd locking piece portion of cable stops, and (b) is a transverse-plane explanatory view of the 1st locking piece portion.

**Drawing 5** It is a transverse-plane explanatory view of the cable stops in the state of carrying out interposing and fixing of the cable.

**Drawing 6** It is a flat-surface explanatory view of the cable stops in the state of carrying out interposing and fixing of the cable.

**Drawing 7** It is a side explanatory view of the height of the 1st suspending portion.

**Drawing 8** They are some transverse-plane explanatory views of the cable stops for explaining the work which removes the 1st suspending portion from the 2nd suspending portion.

**Drawing 9** It is a transverse-plane explanatory view showing the other examples of the gestalt of the cable stops by this invention.

**Drawing 10** Explaining the conventional cable stops, as for a transverse-plane explanatory view and (b), a side explanatory view and (c) of (a) are bottom explanatory views.

### **Description of Notations**

10 -- Circular part, -- Cable stops and 11 -- A rectangular bend part and 12 -- A fixation hole and 13 14 -- **A height, 18 / -- A rectangular piece (the 2nd suspending portion) and 19 / -- An opening, 20, 21 / -- A bend part and 81 / -- Inclined part** -- A circular-projections part, and 15a, 15b -- A rectangular piece part and 16 -- A rectangular piece (the 1st suspending portion) and 17

### **Drawing 1**

For drawings please refer to the original document.

### **Drawing 2**

For drawings please refer to the original document.

### **Drawing 4**

For drawings please refer to the original document.

### **Drawing 7**

For drawings please refer to the original document.

### **Drawing 3**

For drawings please refer to the original document.

### **Drawing 5**

For drawings please refer to the original document.

### **Drawing 6**

For drawings please refer to the original document.

### **Drawing 8**

For drawings please refer to the original document.

### **Drawing 9**

For drawings please refer to the original document.

### **Drawing 10**

For drawings please refer to the original document.

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For drawings please refer to the original document.

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